ASH GROVE CEMENT COMPANY

"WESTERN REGION"

February 27, 1998

Mr. Fred Austin
Puget Sound Air Pollution Control Agency
110 Union Street, Suite 500
Seattle Washington 98101-2038

Dear Mr. Austin;

The enclosed narrative is a request to revise Conditions 7 , 8 and 11 of PSAPCA Order No. 5730 dated December 29, 1994.

We appreciate PSAPCA's assistance. Please call should you have any questions.

Yours truly,

Gerald J. Brown
Manager, Safety and Environmental

Enclosure

cc: HV
HES

627145

AGCS2M002259

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SEA0662

Will not feed until 1300-1700°F

Request to revise PSAPCA Order of Approval # 5730

Ash Grove Cement Co. seeks to revise Conditions 7 and 8 of PSAPCA Order No. 5730 dated December 29, 1994. Under the revised Condition 7 for SO_2 emissions from the main stack that occur during the preheat phase of start up, the kiln would be deemed in compliance when defined work practices and guidelines are followed. Records of the defined work practices and guidelines would be kept for each kiln preheat. Appendix A to the revised Condition 7 (attached) defines procedures for startup, shutdown and scheduled maintenance. Appendix A is modified to provide guidelines for shortened and extended preheats.

Kiln preheat is the thermal conditioning of the kiln system and occurs in preparation for the start up of the cement manufacturing process. Heat addition is controlled to a rate consistent with good operating practices and proper conditioning of the whole kiln system.

Work practices specify that:

1. Thermal conditioning or preheating of the kiln system is performed using only natural gas as fuel. Natural gas contains less sulfur than the coal and tire fuels that are also used when feed is on the kiln.
2. Normal preheating of the cold kiln system will follow the standard 24 hour preheat guideline. Preheating a warm kiln will be shorter in duration as determined by temperature in the system and will follow the standard 24 preheat guidelines. The 36 hour preheat guideline will be followed for extended preheats necessary for curing new refractory or other similar conditions. The operating criteria stated by the guideline may be modified as necessary to account for case specific conditions.
3. Sulfur rings will be removed from the kiln prior to start up if the rings required the kiln to be shut down.
4. The shutdown of the kiln will follow the 24 hour cool down turning guideline to insure that as much material containing sulfur as possible is emptied from the kiln without sustaining damage to the system.

The following modifications to Conditions 7, 8 and 11 are requested:

Condition 7. During startup and shut down of the kiln, and during scheduled maintenance on the main baghouse, all of the emission limits stated in Condition 6 apply, except that emissions from the main stack shall not exceed ~~200 ppm of SO_2 corrected to 10% O2 for a one hour average and 1000 ppm NOx corrected to 10% O2 for a one hour average and~~ the following limits:

1. During preheat, the SO_2 emission limit for the main stack shall consist of compliance with the following work practices and fuel restrictions.
   A. Only natural gas is used as fuel. Specific heating guidelines found in Appendix A shall be followed for cold/warm kiln system and system conditioning after maintenance. ~~The criteria stated by the guideline may be modified as necessary to account for case specific conditions.~~
   B. Sulfur rings will be removed from the kiln prior to start up if the rings required the kiln to be shut down.
   C. Any shutdown of the kiln will follow the normal rotation and cool down guideline in Appendix A to remove as much material from the kiln as possible without damaging system components.
2. After the introduction of feed to the kiln, SO_2 emissions from the main stack shall not exceed 200 ppm corrected to 10% O_2 for a one hour average.
3. At all times during kiln startup, shutdown and scheduled maintenance, NOx emissions shall not exceed 1000 ppm corrected to 10% O_2 for a one hour average.

Appendix A to this order defines the startup, preheat, shutdown and scheduled maintenance conditions under which these alternate limits apply.

Condition 8. Ash Grove shall monitor and report CO, NOx, SO_2 , and opacity from the main baghouse according to Article 12 of Regulation I. SO_2 emissions from the main stack shall be monitored at all times following the introduction of feed to the kiln.

Condition 11. This order of Approval supersedes and cancels Order of Approval ~~No. 3382 dated June 19, 1990~~ No. 5730 dated December 29, 1994.

Additionally, Conditions 9 and 10 of PSAPCA Order of Approval # 5730 should be deleted as all actions have been completed.

Appendix A (Revised)
Kiln Start Up/Shutdown and Maintenance Procedures

KILN START UP - PREHEATING

1. Start the main baghouse.

2. Follow the designated preheating guidelines for increasing kiln temperature, decreasing oxygen and for kiln rotation.

3. Adjust the air flow and fuels to increase stage 5 exit temperature and decrease kiln inlet oxygen in accordance with the preheat guidelines.

4)

KILN START UP - FEED ADDITION

1. When the kiln is prepared for feed as per the preheating guideline, start the kiln main drive and assure the ID fan is running at the appropriate speed..

2. After the kiln is on main drive, start the kiln feed at 75 tons per hour with sorbent added as necessary, to control sulfur dioxide emissions to below permit level.

3. Maintain the temperature of the material stream, increase the feed rate and adjust the draft and the fuel to achieve normal production levels.

4. Estimated START UP time: 24 hours following a successful initial feeding of the kiln as defined by #2 above.

KILN SHUT DOWN

1. Stop the feed, shut off the fuel and reduce the draft. For emergency shut downs, retain as much heat as possible in the kiln to ease restart after the cause of the emergency is corrected.

2. The kiln is rotated in accordance with the guidelines to prevent thermal warpage of the kiln shell and shock to the refractory that could cause failure of either. During these rotations feed material inside the kiln is discharged. All turns are to be made on the auxiliary drive and should be approximately 100 degrees of rotation.

3. Cooling air flow is adjusted after the fire is taken off the kiln. The temperature must be decreased in a manner protective of the kiln system and refractories.

4. If a situation such as a critical position of the kiln is encountered, heavy rains begin or similar event, the kiln may be rotated continuously for protection of the shell until the situation clears.

5. The baghouse will remain in operation.

6. A cool down period is required before entry is made into the kiln.

MAIN BAGHOUSE MAINTENANCE PROCEDURES

Monitoring Performance

1. Main Baghouse temperatures and pressures in the baghouse are continuously monitored by the control room while performance is checked by an opacity monitor on the kiln stack.
2. Condition of the baghouse components are inspected routinely to prevent failures during operation.

Trouble shooting

1. Efforts to repair deficiencies will begin immediately upon detection.

2. Once a problem is identified and located, individual compartment(s) containing the defective equipment can be isolated for repairs without shutting down the entire baghouse.

3. Baghouse inlet and blow back dampers are closed and secured to isolate the compartment(s) containing the problem.

4. Compartment(s) doors are opened and the cell is allowed to cool for safe entry.

5. Once the repairs are completed, the compartment(s) is returned to operation.